

IN THE CLAIMS:

1 1. – 13. (Cancelled)

1 14. (Previously Presented) A method for initiating a peer-to-peer communication session,
2 comprising:

3 creating, using a cluster connection manager executing on a first server, an initial
4 connection with a cluster partner on a second server;

5 exchanging a set of peer connection information;

6 passing a set of cluster connection manager client information to the cluster part-
7 ner, wherein the set of cluster connection manager client information includes at
8 least one virtual interface and any memory requirements for each cluster manager
9 client;

10 creating a set of appropriate communication ports using the set of cluster connec-
11 tion manager client information, wherein the virtual interface connection allows remote
12 direct memory access (RDMA) operations that allow the cluster connection manager op-
13 erating on the first server to directly access memory regions of the cluster partner operat-
14 ing on the second server;

15 alerting the cluster partner of a ready status; and

16 alerting a set of cluster connection manager clients that the cluster partner is in a
17 ready state.

1 15. (Original) The method of claim 14 wherein the set of clients comprises a failover
2 monitor process.

1 16. (Original) The method of claim 14 wherein the set of peer connection information
2 comprises a version number.

1 17. (Previously Presented) The method of claim 14 wherein the step of passing a set of
2 client information to the cluster partner further comprises:

3 collecting, from a set of clients, the set of client information; and

4 transferring the collected set of client information to the cluster.

1 18. (Original) The method of claim 17 wherein the client information comprises a num-
2 ber of communication ports required.

1 19. (Original) The method of claim 17 wherein the set of client information further com-
2 prises an amount of memory requested by a particular client.

1 20. (Previously Presented) The method of claim 14 wherein the step of creating an initial
2 connection further comprises using remote direct memory access primitives to create the
3 initial connection.

1 21. (Previously Presented) The method of claim 14 wherein the step of creating an initial
2 connection further comprises performing a series of remote direct memory access opera-
3 tions to create the initial connection.

1 22. – 27. (Cancelled)

1 28. (Previously Presented) A system configured to manage reliable peer communication
2 among storage systems in a clustered environment, the system comprising:

3 one or more peer processes executing on each storage system partner; and

4 a cluster connection manager executing on each storage system partner, the clus-
5 ter connection manager creating a set of peer-to-peer connections between the one or
6 more peer processes executing on each storage system, wherein the cluster connection
7 manager is provided to reliably create virtual interface connections between peer proc-
8 esses executing on the storage system partners over a cluster interconnect without requir-
9 ing a storage operating system executing on each storage system to be fully active or
10 functioning, wherein the virtual interface connection allows remote direct memory access
11 (RDMA) operations that allow the cluster connection manager operating on the first
12 server to directly access memory regions of the cluster partner operating on the second
13 server.

1 29. (Currently Amended) A computer readable ~~medium for initiating a peer-to-peer~~
2 ~~communication session, the computer readable medium including containing executable~~
3 ~~program instructions executed by a processor for performing the steps of, comprising:~~

4 program instructions that ~~creating~~create, using a cluster connection manager exe-
5 cuting on a first server, an initial connection with a cluster partner on a second server;
6 program instructions that ~~exchanging~~exchange a set of peer connection informa-
7 tion;

8 program instructions that ~~passing~~pass a set of cluster connection manager client
9 information to the cluster partner, wherein the set of cluster connection manager
10 client information includes at least one virtual interface and any memory require-
11 ments for each cluster manager client;

12 program instructions that ~~creating~~create a set of appropriate communication ports
13 using the set of cluster connection manager client information, wherein the virtual inter-

14 face connection allows remote direct memory access (RDMA) operations that allow the
15 cluster connection manager operating on the first server to directly access memory re-
16 gions of the cluster partner operating on the second server;
17 program instructions that alerting alert the cluster partner of a ready status; and
18 program instructions that alerting alert a set of cluster connection manager clients
19 that the cluster partner is in a ready state.

1 30. – 38. (Cancelled)